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REPORT NO. 2

Cotton Fiber and Processing Test Results

CROP of

1977



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38122 October 7, 1977

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1977

Discussion of Test Results

The average Fibrograph 2.5% span length of medium staple samples tested from the Southwest through September 30 is the same as a year ago at this time, according to the Cotton Division, Agricultural Marketing Service, USDA. Cottons tested to date show the same uniformity and fineness properties as a year ago. Samples tested are stronger at zero gage fiber strength tests. Picker and card waste is lower than a year ago. Yarns spun from these samples are slightly stronger than a year ago. The average appearance index is lower. The average spinning potential yarn number is slightly higher.

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These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season.^{1/} These reports are available on request from the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN 38122.

^{1/} Summary of Cotton Fiber and Processing Test Results, Crop of 1976,
USDA, AMS, Cotton Division, June 1977.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through September 30, 1977 1/

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results									
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality		Spin. Potent.	Yarn No.					
		2.5% span	50/2.5 unif.		Zero gage	1/8" gage			Skein str.	Appear- ance			Imperf- ections				
				Inches			Pct.	Rdg.			Mpsi	G/tex		Pct.	Lbs.	Index	No.
Short Staple: Southwest 1976 1977	14	.97	45	3.9	90	22	3.5	5.5	98	107	13	43					
Medium Staple: Southeast 1976 1977	3	1.05	47	4.8	87	23	3.9	5.8	103	93	23	51					
South Central 1976 1977	24	1.12	46	4.5	88	23	3.5	5.4	111	96	22	61					
Southwest 1976 1977	19	1.06	46	4.2	81	22	3.1	6.0	105	101	18	58					
													27	1.06	46	4.2	84
Significant dif- ference <u>2/</u>		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3					

1/ Based on a limited number of samples of modal quality
2/ Minimum differences considered to be significant for comparisons in this table.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1977

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns												
Grade		Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent-ial				
				2.5% span	Unif		Zero	1/8" Gage			Gra	Yel		8s or 74 tx	22sor 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22sor 27 tx	8s or 74 tx	22sor 27 tx					
No	Name & Code			In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No				
SOUTHWEST AREA																										
CENTRAL TEXAS																										
BARDWELL																										
1	MID	LT	SP	32	30	0.95	46	4.3	90	21	5.6	2.9	2	5	5.0	98 PERCENT		270	85	6.0	5.3	120	110	21	11	38
BRANDON																										
2	MID	LT	SP	32	30	0.90	46	4.0	88	20	6.0	3.0	2	4	4.8	100 PERCENT		288	93	7.0	6.0	120	120	22	13	35
DILLEY																										
2	SLM	LT	SP	42	1/33	0.99	43	2.9	85	22	6.1	3.4	0	4	5.7	80 PERCENT		295	106	7.7	6.5	120	90	42	19	56
3	SLM	LT	SP	42	1/32	1.01	45	3.0	84	21	6.0	4.2	0	4	5.6			304	108	7.7	6.4	120	100	28	21	50
ITASCA																										
1	MID			31	30	0.95	45	4.5	94	22	5.7	3.2	1	4	5.1	100 PERCENT		276	96	6.8	5.3	130	110	20	11	39
LOTT																										
2	MID	LT	SP	32	30	0.94	45	3.9	88	21	5.9	3.2	1	4	5.5	95 PERCENT		281	95	7.3	6.1	120	110	29	11	41
3	MID	LT	SP	32	30	0.97	46	4.0	86	21	5.9	4.2	2	4	5.1			288	95	7.1	5.8	120	110	25	20	41
PALMER																										
1	SLM	LT	SP	42	30	0.96	46	4.2	90	21	5.5	4.2	3	4	7.5	99 PERCENT		275	84	6.0	4.8	130	110	18	12	27
WACO																										
2	MID	LT	SP	32	32	1.00	46	4.2	97	23	5.4	2.6	2	4	5.3	100 PERCENT		311	108	7.1	5.9	130	110	15	8	52
3	SLM	LT	SP	42	32	1.01	46	3.9	96	22	5.4	4.9	2	4	6.0			284	99	6.8	5.7	120	110	22	16	31

1/ Reduced from 32 because of bark
2/ Cotton stuck to processing rolls

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1977--(Continued)

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns											
No	Grade	Stple	32s	In	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potentia		
					2.5% span	Unif.		Zero	1/8" Gage			Mpsi	G/tex		Pct	Rdg	Gra	Yel	Lbs	Pct	Lbs	Pct		22s or 27 tx	50s or 12 tx
SOUTH CENTRAL AREA--(Continued)																									
MISSISSIPPI--(Continued)																									
GLENDORA																									
1 LM		51	36	1.13	47		5.2	92	23	5.4	4.6	3	2	6.4		100 PERCENT	110	36	5.5	3.7	100	80	25	17	55
GREENVILLE																									
1 SLM PLUS		40	36	1.17	47		4.1	88	25	6.8	4.2	0	2	4.7		100 PERCENT	123	42	6.5	5.2	90	70	17	15	72
GUNNISON																									
2 SLM		41	35	1.13	47		4.5	88	25	6.3	2.9	2	2	3.9		100 PERCENT	119	41	6.6	5.0	90	70	28	21	61
HOLLANDALE																									
1 SLM		41	36	1.18	46		4.2	86	24	6.3	4.2	2	2	5.3		100 PERCENT	119	42	6.1	4.9	90	70	30	19	72
INDIANOLA																									
1 SLM		41	35	1.11	47		4.6	89	25	5.7	4.2	2	3	5.9		100 PERCENT	114	37	6.0	4.5	100	70	18	13	62
INDIANOLA																									
1 LM PLUS		50	35	1.11	46		4.3	94	24	4.9	4.8	1	2	7.2		100 PERCENT	108	36	5.5	4.2	90	70	25	21	56
MORGAN CITY																									
1 SLM		41	35	1.13	45		4.7	83	22	6.0	3.0	2	3	6.0		100 PERCENT	104	35	6.1	4.6	90	70	18	14	55
TRIBBETT																									
1 LM PLUS		50	36	1.15	45		4.3	97	23	4.7	4.0	1	2	6.4		100 PERCENT	119	41	5.4	4.1	90	80	19	16	63
MISSOURI																									
1 SENATH		42	34	1.08	45		3.6	81	22	6.1	3.8	2	4	6.4		100 PERCENT	100	32	6.3	4.5	90	70	41	33	52
SENATH																									
1 SLM		41	35	1.13	46		4.3	85	23	6.2	2.7	1	3	5.1		76 PERCENT	115	38	6.4	4.9	90	60	36	27	64
TENNESSEE																									
1 BRADEN		41	34	1.08	46		3.9	87	24	6.7	2.4	1	3	4.8		70 PERCENT	114	38	6.5	5.0	100	70	16	13	60

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1977--(Continued)

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns										
No	Grade	Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non-Lint		Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Poten- tial	
				2.5% span	Unif.		Zero Gage	1/8" Gage		Pct	Pct	Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	Pct	Pct	22s or 27 tx	50s or 12 tx		22s or 27 tx
Name & Code				In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No	
SOUTHWEST AREA																								
SOUTH TEXAS																								
CANADO																								
2 MID	31	34	1.09	46	4.6	84	23	6.4	3.9	0	3	4.8	90 PERCENT	110	37	6.0	4.4	90	70	20	16	61		
SEBASTIAN																								
3 SLM	41	33	1.06	46	4.4	83	22	6.5	2.7	1	4	4.9	97 PERCENT	110	37	6.6	4.9	100	70	14	11	66		
CENTRAL TEXAS																								
BATESVILLE																								
2 MID	31	35	1.09	45	4.0	83	23	6.3	2.4	0	4	5.2	90 PERCENT	113	38	6.2	4.7	90	70	14	12	64		
3 MID	31	35	1.09	46	4.2	85	22	5.8	2.5	0	4	4.7		110	36	5.9	4.4	90	70	20	16	59		
CROCKETT																								
1 SLM	41	34	1.03	46	4.9	92	22	5.3	3.4	3	3	6.2	75 PERCENT	83	23	4.4	3.8	90	80	23	20	25		
GRANDVIEW																								
1 MID	31	30	0.98	45	4.0	92	22	5.6	3.2	0	3	4.9	90 PERCENT	87	26	5.3	3.9	90	60	27	23	36		
NAVASOTA																								
1 MID	31	35	1.06	46	4.6	93	25	6.3	2.2	1	3	4.2	100 PERCENT	110	35	6.0	4.4	90	70	10	9	58		
2 SLM	41	35	1.14	47	4.3	89	24	6.2	2.2	1	3	4.4		115	39	6.2	4.6	100	90	21	16	66		

1/ End breakage too high to spin 50s yarn. 36s yarn spun and strength adjusted to equivalent of 50s.

